

CLAIMS

What is claimed is:

1. A video surveillance camera enclosure, comprising:

a camera housing for receiving a video surveillance camera chassis through a lower end, said housing adapted for insertion into an opening in a ceiling member and including a connector disposed on an upper end of said housing for electrical connection to a video surveillance camera monitoring system, said housing including a flange disposed near the lower end of said housing for engaging a lower surface of the perimeter of said opening and a plurality of mounting clamps positioned around said housing and adjacent said flange, said mounting clamps having a first position relatively flush with the exterior of said housing so said housing can be inserted into the opening, and a second position extended substantially perpendicularly outward from the exterior of said housing for engaging an upper surface of the perimeter of the opening, said mounting clamps being moveable from said first position to said second position to capture a portion of the ceiling member adjacent said opening between said flange and said mounting clamps to secure said housing to the ceiling member, wherein the video surveillance camera chassis and a video surveillance camera attached to said chassis are insertable into the housing through the lower end.

2. The apparatus of claim 1 wherein the distance between said mounting clamps and said flange is adjustable to provide compression on a portion of the ceiling member adjacent said opening between said flange and said mounting clamps.

3. The apparatus of claim 1 further comprising a protective cover for said upper end of said housing.

4. The apparatus of claim 1 further comprising an optical quality, injection molded surveillance camera dome cover attachable to said lower end of said housing.

5. The apparatus of claim 1 wherein the video surveillance camera chassis is disposed within said housing and further comprising a plurality of positioning members disposed on the perimeter of said chassis, said positioning members being engageable with a plurality of alignment flanges on the interior of said housing to guide said chassis into a

5 preselected position within said housing, each of said positioning members including a shoulder for releasably engaging said corresponding alignment flange, each of said shoulders being moveable between a first position butted against said flange to capture said chassis in said preselected position and a second position free of said flange for removal of said chassis.

6. The apparatus of claim 5 wherein each positioning member further comprises means for biasing said shoulder in said first position.

7. The apparatus of claim 5 further comprising a first connector disposed on the interior of said housing in the upper end adapted to mate with a second connector connected to said video surveillance camera chassis, wherein when said chassis is captured in said preselected position, said first and second connectors are in mateable relation to each other, and including at least one fastener for compressing said chassis toward the upper end of said housing to mate said first and second connectors together and to secure said chassis to said housing.

8. The apparatus of claim 7 further comprising a printed circuit board connected to said video surveillance camera chassis and having at least one LED, said chassis including at least one LED view port that corresponds to said at least one LED for remotely viewing said LED from below said housing, said second connector being connected to said printed circuit board

9. The apparatus of claim 8 wherein said LED view port comprises a substantially funnel shaped tube that extends from adjacent said LED to a lower surface of said chassis.

10. The apparatus of claim 5 further comprising a switch connected to said chassis and being switchable from the exterior of said housing without the need to remove said chassis.

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11. A video surveillance camera chassis for mounting a video surveillance camera in a video surveillance camera housing, comprising:

5 a support member having a lower end adapted for installation of a video surveillance camera and a plurality of positioning members disposed on a perimeter of said support member, said positioning members being engageable with a plurality of alignment flanges on the interior of a video surveillance camera housing to guide said support member into a preselected position within the housing, each of said positioning members include a shoulder for releasably engaging the corresponding alignment flange, each of said shoulders being moveable between a first position butted against the flange to capture said support member in said preselected position and a second position free of the flange for removal of said support member.

12. The apparatus of claim 11 wherein each positioning member further comprising means for biasing said shoulder in said first position.

13. The apparatus of claim 11 further comprising a first connector connected to said support member, said first connector being mateable with a second connector disposed on the interior of the housing, wherein when said support member is captured in said preselected position, said first connector and the second connector are in mateable relation to each other, and including at least one fastener for compressing said support member toward the upper end of the housing to mate said first connector and the second connector together and to secure said support member to the housing.

14. The apparatus of claim 13 further comprising a printed circuit board connected to said support member and having at least one LED, said support member having at least one LED view port that corresponds to said at least one LED for remotely viewing said LED from below said support member, said first connector being connected to said printed circuit board.

15. The apparatus of claim 14 wherein said LED view port comprises a substantially funnel shaped tube that extends from adjacent said LED to a lower surface of said support member.

Figure 1 consists of 12 histograms arranged in a 6x2 grid. The left column shows the distribution of the number of non-zero elements in the rows of the matrix A (n=1000) and the right column shows the distribution for the matrix A (n=2000). The x-axis for all histograms is 'Number of non-zero elements' ranging from 0 to 1000. The y-axis is 'Frequency' ranging from 0 to 100. The distributions are roughly bell-shaped and centered around 500 non-zero elements.

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20. The apparatus of claim 17 further comprising a wiring pigtail having a first connector disposed at a first end and at least a second connector disposed at a second end, said first connector being mateable with a third connector disposed on said printed circuit board, the second end of said pigtail extending to the exterior of said housing, said connector disposed on the second end of said pigtail being releaseably connectable to a video surveillance camera monitoring system.

22. The apparatus of claim 21 further comprising a controllable heater element attachable to said support member, said air circulating across said controllable heater element.

